

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



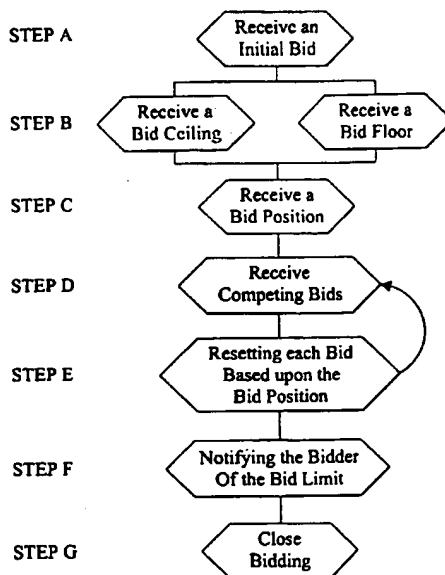
(43) International Publication Date
28 June 2001 (28.06.2001)

PCT

(10) International Publication Number
WO 01/46833 A2

- (51) International Patent Classification⁷: **G06F 17/00** III, 151, Crandon Blvd. Apt. 1127, Florida, FL 33149 (US).
- (21) International Application Number: **PCT/US00/34489**
- (22) International Filing Date:
19 December 2000 (19.12.2000) (74) Agents: **ROOS, Richard et al.**; Nutter, McClennen & Fish, Llp, One International Place, Boston, MA 02110-2699 (US).
- (25) Filing Language: **English** (81) Designated States (*national*): **CA, JP, MX.**
- (26) Publication Language: **English** (84) Designated States (*regional*): **European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).**
- (30) Priority Data:
60/172,084 23 December 1999 (23.12.1999) US
09/536,118 27 March 2000 (27.03.2000) US
Published:
— *Without international search report and to be republished upon receipt of that report.*
- (71) Applicant: **LOGISTICS.COM, INC.** [US/US]; 23 Third Avenue, Burlington, MA 01803 (US).
- (72) Inventors: **BORGESON, Gregg**; 254 Seaview Drive, Key Biscayne, FL 33149 (US). **WILSON, Robert**; Key Colony
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **BID POSITIONING SYSTEM**



WO 01/46833 A2

(57) Abstract: The invention relates to both a method and a computer system that are designed to provide a bid positioning system using a computerized bid proxy. The bid proxy takes instructions from the bidder and then bids based upon these instructions. Using a bid positioning system allows this bidder to place its bids in relation to a lead bid placed by another bidder in an auction based upon either a nominal or percentage distance from the lead bid. In a preferred embodiment, this computerized bid proxy is used in a shipment management system. This system allows a shipper to present at least one shipping requirement for a particular shipment to a centralized server. These shipping requirements could include the origin and destination of a shipment, the time or delivery data of a shipment, the number of articles being shipped, and the weight or volume of the shipment. The server next sends the at least one shipping requirement to a plurality of carriers some of whom are chosen by the shipper and some of whom are chosen

[Continued on next page]



by the system. These carriers next bid based upon the at least one shipping requirement. This system and method also allows these carriers to re-quote their bids based upon the bids presented by the other carriers. Once all of the bid deadline has been reached, the shipper picks the quote that best suits the shipper.

BID POSITIONING SYSTEM

BACKGROUND OF THE INVENTION

5 The invention relates to a method and a system for providing a bid proxy that places bids for a bidder in an auction based upon bid parameters such as an initial bid, a bid ceiling, a bid floor and a bid position. While the bid ceiling and the bid floor establish the range of bids, the bid position sets how close each bidder wants to remain to a leading bid.

SUMMARY OF THE INVENTION

10 The invention relates to a method and a system for providing a bid proxy for a bidder in an online auction. The bid proxy sets each bid based upon bid instructions or parameters sent from each bidder. These bid instructions include an initial bid, a bid ceiling in a traditional auction, a bid floor in a reverse auction, and a bid position. Once an Initial bid is set by the bidder, the bid ceiling sets how high the bid proxy could bid, the bid floor sets how low the bid proxy could bid, the bid floor sets how low the bid proxy could bid, while the bid position sets how close the bid proxy bids in relation to a learning bid. In a traditional auction, the leading bid is the highest bid cast by the other bidders while in a reverse auction, the leading bid is the lowest bid cast by other bidders. These bidders would set their bid position as the distance from this leading bid based upon a percentage of the leading bid, or as a nominal dollar or other currency distance from the leading bid. In addition, these bidders. These bidders would set the distance and position from the leading bid based upon their own perception of qualitative characteristics or on their pricing or marketing strategy. In most cases, these qualitative characteristics are the reputation for the quality and the reliability of the bidder's services or goods.

25 For example, a bidder with high perceived quality characteristics or high perceived reliability might set its bid position as either ten percent or ten dollars lower than the leading bid in a traditional auction, or in the alternative, ten percent or ten dollars higher than the leading bid in a reverse action. Conversely, a bidder with an aggressive pricing strategy or a set of low perceived quality characteristics would set its bid as either ten percent or ten dollars higher than the leading bid in a traditional auction and ten percent or ten dollars lower

30

in a reverse auction. Therefore, in this case, a bidder with the lowest perceived quality characteristics in a group of competing bidders in a single auction would want to instruct the bid proxy to repeatedly reset its bid so that they are the leading bidders.

The invention therefore creates an automated method for imitating the way pricing is often determined in traditional, non automated environments. Buyers often seek preferred vendors with pricing that is near the leading market level, but not necessarily at the leading level.

In a preferred embodiment, this bid proxy system could be used in conjunction with a computer network for providing a computerized Shipment management system. This system allows a shipper to present one or more shipping requirements for a particular shipment to be auctioned off through a centralized server. These shipping requirements include the origin and destination of a shipment, the time or delivery date of a shipment, the number of articles being shipped, or the weight or volume of the shipment. The server next sends these shipping requirements to a plurality of carriers. Once the appropriate carriers determine whether to bid in a reverse auction on this shipment, each carrier would select an initial bid, a bid floor, and a bid position. Thus, for example, one particular bidding carrier might select an initial bid of \$400 for a particular shipment with a bid floor of \$300 and a bid position as 10% higher than the lead bid. Through a preliminary round of bidding, another bidder may set the leading bid to be \$350. Therefore, the bid proxy would reset the bid for the initial bidder to be \$385, or 10% higher than \$350. If the bidding continued to drop as other bids are entered so that the lead bid drops to \$320, then the bid proxy would reset the particular bidding carrier to have a bid of \$352, or 10% higher than the current lead bid. As the bidding continues to fall further so that the lead bid fell to \$200, the bid proxy would hold the final bid for that particular bidder to \$300, or its bid floor.

Each bidding carrier can make a judgment as to how a customer or shipper might perceive its reputation for quality in terms of delivery performance record, billing accuracy, shipment tracking capabilities, and other factors. Because the customer will probably take into account their own perception of quality, the carrier can use bid positioning to insure that its final bid reflects this perception. In addition, the carrier can use bid positioning to reflect an aggressive or conservative pricing strategy for its product in the market.

In a single step, the carrier can enter its initial bid, its bid floor, and its bid position. Thus, the carrier does not have to continuously participate in the auction to determine whether its offer is still competitive because the automated proxy is constantly adjusting the bid to the exact desired position in relation to the lowest bid offered.

5 The auction system may be embedded in a shipment management system that brings other benefits to the shipper. Once the shipper selects a carrier, the system creates a booking or reservation between the shipper and that carrier. The shipment management system tracks the shipment for the shipper by accessing automated database and creating a table to allow the shipper to check the delivery status of each of his shipments. The shipment management
10 system also compares the actual performance from the tracking system against the promised performance by the carrier, and creates or the shipper various reports and tables comparing the performance of one carrier to another. The shipment management system also displays the carrier performance data to the shipper when the shipper is evaluating bids from various carriers during an auction.

15 BRIEF DESCRIPTION OF THE DRAWINGS

Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawings, which disclose several embodiments of the present invention. It should be understood,
20 however, that the drawings are designed for the purpose of illustration only and not as a definition of the limits of the invention.

In the drawings, wherein similar reference characters denote similar elements throughout the several views:

FIG. 1 is a flow diagram illustrating the process for the bid Positioning system
25 according to the invention;

FIG. 2 is a schematic diagram of the computer network for the bid positioning system;

FIG. 3A is a schematic diagram of a bid proxy prompt screen for a reverse auction;

FIG. 3B is a schematic diagram of a bid proxy prompt screen for a traditional auction;

30 FIG. 4A is a flow diagram of the software of the preferred embodiment;

FIG. 4B is a continuation of the flow diagram of the software of the preferred embodiment;

FIG. 4C is a continuation of the flow diagram of the software of the preferred embodiment;

5 FIG. 5 is a schematic diagram of a shipping information screen;

FIG. 6 is a schematic diagram of a carrier bidding input screen;

FIG. 7 is a schematic diagram of a screen presented to the bidder containing bid results;

FIG. 8 is a schematic diagram of a booking screen;

10 FIG. 9 is a schematic diagram of a shipment tracking system screen;

FIG. 10 is a schematic diagram of a performance report screen; and

FIG. 11 is a schematic diagram of a costs savings screen.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

15 Referring to the drawings, FIG. 1 shows a flow chart of the bid proxy system for a computerized auction. In step A, the system that is housed on server 100 as shown in FIG. 2 receives an initial bid from an individual bidder. Next in step B, the system receives a bid limit such as a bid ceiling or a bid floor from the bidder. These bidders are logged on to at least one of the remote bidding computers 112. The computer system for this process is

20 shown in FIG. 2 showing a central server 100 that is in communication with at least one remote input device such as a bidder computer 110 or a bidder computer 112 through the Internet 101. Bidder computer 110 is used by persons who are interested in receiving quotes or bids, while bidder computer 112 is used by persons making quotes or bids to the people requesting these quotes or bids. Connecting these two computers is server 100 that has a

25 processor 102 and storage means 104. Storage means 104 could be any form of hard drive or removable data storage device for storing data so that it houses a database 106 that has a series of tables 108. Tables 108 also relate to a series of web pages 109 having prompts and entry fields shown in FIGS. 3A and 3B and in FIGS 5-11.

In this case, as shown in the process of FIG. 1, and in the screen embodiment 50a and 50b of FIGS. 3A and 3B, each one of the bidders can insert an initial bid 52. In step B, the

30

system could also receive a bid floor 54a and a bid ceiling 54b. Next, in step C, a bid position 56 is received from the bidder to establish a position for that bidder relative to the lead bid. Next, the bidder assigns the system to be his bid proxy, to adjust the bidder's bid based upon the bid position and the lead bid. In step D, the auction is opened to all bidders simultaneously so that all of the bidders can bid on a particular product or service offered by the biddee. Next, in step E, the bid proxy continuously adjusts bids for each bidder based upon the bid positioning system during the bidding period.

In the preferred embodiment, as shown in FIGS. 4A, 4B, and 4C, this bid proxy having a positioning system is used in a computerized auction for a shipment management system. In this case, the method for the shipment management system is performed over a computer network such as the Internet. In addition, a server 100 is used to host a computerized system that controls the method. The server may run a Unix operating system, Microsoft NT operating system or any other input system known in the art.

A user, such as a carrier, or a shipper, can interact with the server using a remote computer. A shipper is any person or entity looking to ship products using the shipment management system according to the invention. A carrier is any person or entity in the business of transporting goods and who uses the system to exchange information with the shipper. The shipper logs onto biddee computer 110 to request quotes from a plurality of carriers, and the carrier uses bidder computer 112 to make quotes.

Thus, in the preferred embodiment (as shown in FIG. 4a) in step 1, server 100 (FIG. 2) presents a web page (not shown) over a computer network on biddee computer 110, so that the shipper completes the registration data. Next, in step 2, the shipper selects the mode of transportation for the shipment such as air, sea, or land. In step 3, the shipper enters basic shipment data into web page 150 as shown in FIG. 5 and selects three carriers from a list of carriers stored on a table on database 106. In the alternative, the shipper could select an original carrier not listed in the table on database 106. Here, the system contacts that individual solicited carrier to sign that carrier up to the system. Essentially, these carriers are split into one of two groups, solicited carriers, and unsolicited carriers. Solicited carriers are those carriers that are selected directly by each shipper.

Additionally, unsolicited carriers, are carriers that are selected by the system after the

solicited carriers have been selected. Next, in step 4, and in step 5, the shipper confirms whether the data entered is complete and if the data is incomplete, the shipper enters additional shipment data. After this information is confirmed, in step 6, the system selects and notifies three additional unsolicited carriers from a table in database 106. This selection
5 can be random, the result of another auction or based upon certain the shipping data entered by the shipper. This data includes the date that the shipper needs the bids 152, the deadline for the bidding to end 153, the date the shipment will be ready 154, the delivery deadline 155, the destination city 156, the destination country 157, the weight of the shipment in pounds or kilos 158, the dimensions of the shipment 159, the number of pieces 160, the list
10 of the top three preferred carriers 161, 162, 163, a field that lists who pays for the charges 164, and a field for any other information 165. In this step, each one of the selected carriers receives a message inviting them to join in the bidding process.

In step 7, the system creates six separate private bid screens each, as shown in the screen in FIG. 6. The top portion of these screens contains similar information taken from the entry screens that were shown in Fig. 5, with the responses entered by the shipper.
15

Next, in step 8, the system determines whether the carrier is registered. If the carrier is not registered, then system creates an email, fax, phone, or any other type message to a system manager to personally contact the carrier to register that carrier.

Next, in step 9, a person associated with the system contacts the carrier and helps
20 that carrier to fill out the bidding screen in step 10 to register for the system. In the bottom portion of Fig. 6, each carrier enters its response to the shipper. This screen allows each one of the carriers to instruct a bid proxy on how to bid during the bidding process. In this case, screen 167, as shown in FIG. 6, shows the individual bid response table which lists the individual carrier in field 240, the additional information prompt in field 242, while the additional information answer is disposed in field 244. In addition, the shipping charges for
25 both the opening bid 246 and the lowest bid 248 are broken down into the following categories: charges at origin 250; transportation costs 252; charges at destination 254; and the total charges 256. Screen 167 also references the bid positioning prompts 258 for each carrier. In this case, there is a prompt to match the lowest bid 270, a prompt to go below the
30 lowest bid by a particular percentage 262, and to go above the lowest bid by a particular

percentage 264. The carrier can also enter information about setting a bid ceiling or a bid floor to keep the bid proxy from moving beyond a range preferred by the carrier. Thus, using this system, each carrier can instruct a bid proxy exactly how to bid for it based upon the instructions entered into this screen.

5 Next, in step 11, the system checks to see whether all of the carriers have filled out their screens. If not, a message is sent to any carrier not responding up to a set period of time such as one hour. A copy of this message is sent to an operations department associated with the system.

10 In step 12, the system starts the automated bid proxy-bid positioning system for a reverse auction on the shipping system. In this case, as any carrier's private bid is entered, it may cause an adjustment to, or recalculation of, any or all of the other entered bids so that the bids change. Thus, if a particular carrier selects its bid position to be a percentage difference from the lead bid, the process starts by having a first carrier opening bid entered into the system and comparing it to the lowest entered bids from all other carriers. Next, the
15 system performs a calculation comparing the first carrier's chosen bid position against the lowest bid from the other carriers. If the resulting figure from this calculation is greater than the first carrier's opening bid, the system keeps the first carrier's opening bid to leave the bid price the same. However, if the resulting figure is less than the first carrier's lowest bid, then the resulting figure is entered to drive the bid price down. This process is then repeated until
20 the bid deadline is reached, and then the bidding is closed.

 Next, in step 13, the system assembles the results of the bidding into screen 168 in FIG. 7. Screen 168 contains all of the information entered into screen 150 in FIG. 5, plus additional information. This additional information includes a listing of the selected carriers 170, the total cost for shipping the shipment 171, the carrier's comments 172, the carrier's
25 percentage of on time deliveries or their percentage for on-time bookings for transit, a quantitative percentage for quality performance 174, and a question regarding whether the shipper wants to book this quote 175. This information is filled into blank tables 166 to render a data output. In addition, the shipper is presented with an additional listing of unsolicited carriers 177 wherein this listing shows at least one additional carrier.

30

Next, in step 14, the system sends a message such as an email or fax to the shipper notifying the shipper that the auction is complete and providing the shipper with a means to connect to its own private bid screen. If a reasonable period of time has passed, and the shipper has not responded, in step 15, an additional, message is sent to an operations staff that operates the system.

Then, in step 16 the operations staff acts upon the shipper's failure to respond by either sending an additional email or making a phone call to see if the shipper wants to accept a bid.

In step 17, the shipper views screen 168 and selects a carrier.

Next, in step 18, the system creates an additional screen 178 shown in FIG. 8 which confirms that the shipper selected the carrier and creates fields for consignee information such as the consignee company name 180, the consignee contact name 181, the consignee's email or fax 182, the location of the pick up 183, and whether to call to schedule a pick up 184, and the payment terms. In this case, a consignee is any party to whom the shipper instructs the carrier to deliver the goods.

In step 19, the shipper completes screen 178. In step 20, the system next creates and sends a message such as an email, voice, fax, or any other type of message to the selected carrier informing them that their bid has been accepted, and directing them to a bid acceptance screen.

Next, in step 21, the system creates a bid acceptance screen that contains the shipment details, the agreed price, and the system's fee for matching the shipper to the carrier. In step 22, the carrier completes the bid acceptance screen. To accept shipment, the carrier must confirm this information, and may provide a means for tracking the shipment, such as a number. Larger carriers will have a tracking system that will be used to track the shipment. In step 23, if after a brief period of time such as 60 minutes, the carrier does not accept the shipper's acceptance, the system then creates an email to the operations department associated with the system. Next, in step 24, the operations department takes appropriate action such as calling the carrier to ensure that there is a response.

In step 25, when the carrier's acceptance is received, the system creates a screen for the carrier giving all customer or shipper details such as name, location, phone number,

pickup instructions, consignee name, and contact details.

Next, in step 26, the system creates and sends an email to the shipper confirming that the carrier booking has been completed and advises the shipper of the carrier's reference number. In step 27, the system sends a message to the consignee devising the consignee about the shipment details including the booking and delivery deadline details. The consignee is offered tracking information through the system's online tracking system.

In step 28 the system checks to see if this is the first shipment to the consignee. If it is, the system creates an email to the marketing department for follow-up. Next in step 29, the system updates the billing information for the appropriate booking fee to the selected carrier. Finally, in step 30, the system creates invoices to carriers for use of the system based on a set schedule, such as twice monthly. The system can also provide additional services for the shipper. In step 31 the system creates a series of screens for tracking cargo decisions. For example, FIG 9 shows a screen 190 that presents information that tracks the shipments for each individual shipper. This screen lists the date of each shipment 191, the reference number 192, the name of the consignee 193, the name of the carrier 194, the booking reference 195, the actual result 196 as to whether the carrier made its booking or whether the shipped product was delivered. In addition, this screen could also list the status of the delivery 197 such as whether it is enroute or delayed. In addition, in FIG. 10, there is shown a screen 200 that lists the name of the carrier 201, the number of shipments in the last 90 days 202, the number that each carrier has with tracking data 203, the percentage of shipments without tracking data 204, the number of booked flights missed or delivery 205, the percentage of booked flights missed for each shipment 206, and the percentage of booked flights missed for all of the system's customers 207. This screen is useful because it allows a shipper to see a carrier's history and the quality of their service before using them to ship an item.

As shown in FIG. 11, there is a means for tracking a cargo shipping decision-making process. This feature may be used to quantify the kind of decision the shipper has made relative to price and quality. In order to achieve this goal, this system could include summary report screen 210 that shows the cost breakdown for a shipper. This screen includes a recent history of shipments that includes references to a reference number 211, the destination of

the shipment 212, the type of carrier selected 213, the price paid vs. the percentage of bookings missed 214, the low offer concerning price and quality 215, and the high offer concerning price and quality 216. Next, there is a summary breakdown of the average cost paid 217, the average cost offered 218, the average of the lowest offers 219, and the average of the highest offers 220. This breakdown could be based upon the type of shipping process such as land, sea or air shipments. Therefore, this screen allows each shipper to evaluate the decision process by maintaining and compiling the cords of the bids and bidders. Finally, in step 32, this process for a shipment management system would end.

Ultimately, this bid positioning system could be used in other types of online auctions. For example, professionals such as doctors, lawyers, accountants, and architects could offer services through an online auction. In this way, they would set the pay scale for their services to be commensurate with the perceived value of their work.

Accordingly, while a few embodiments of the present invention have been shown and described, it is to be understood that many changes and modifications may be made thereunto without departing from the spirit and scope of the invention as defined in the appended claims.

WHAT IS CLAIMED IS:

1. A method for establishing a bid proxy for a plurality of bidders in a computerized auction, over a computer network comprising the steps of:

5 a) receiving at least one bid from each of the plurality of bidders over the computer network;

b) receiving at least one bid limit from each of the plurality of bidders over the computer network;

c) receiving at least one bid position from each of the plurality of bidders over the computer network;

10 d) selecting a lead bid from said at least one bid placed by each of the plurality of bidders;

e) calculating a re-bid for each of said at least one bid placed by each of the plurality of bidders by positioning said re bid based upon the bid position in relation to said lead bid; and

15 f) selectively replacing said at least one bid for each of the plurality of bidders with said re-bid.

2. The method as claimed in claim 1, wherein said step of selecting said lead bid includes selecting a highest bid placed by the plurality of bidders.

20

3. The method as claimed in claim 1, wherein said step of selecting said lead bid includes selecting a lowest bid placed by the plurality of bidders.

4. The method as claimed in claim 1, wherein said step of receiving at least one bid position includes receiving a nominal monetary spread from said lead bid.

25

5. The method as claimed in claim 1, wherein said step of receiving at least one bid position includes receiving a percentage relationship with said lead bid.

30

6. The method as claimed in claim 1, wherein said step of calculating a re-bid includes increasing the bid of at least one of the plurality of bidders.

7. The method as claimed in claim 1, wherein said step of calculating a re-bid includes decreasing the bid of at least one of the plurality of bidders.

8. The method as claimed in claim 1, wherein the step of receiving at least one bid limit includes receiving a bid ceiling so that during the auction, the bid proxy sets said re-bid at said bid ceiling when said bid position calculates a bid higher than said bid ceiling.

9. The method as claimed in claim 1, wherein the step of receiving at least one bid limit includes receiving a bid floor so that during the computerized auction, the bid proxy sets said re bid at said bid floor when said bid position calculates a bid lower than said bid floor.

10. A method for providing a computerized shipment management system for at least one shipper over a computer network comprising the steps of:

a) receiving at least one shipping requirement from the at least one shipper for a shipment over a computer network;

b) communicating said at least one shipping requirement over the computer network to a plurality of carriers;

c) receiving at least one quote for shipping from said plurality of carriers for shipping said shipment over said computer network;

d) presenting said at least one quote from said plurality of carriers to the at least one shipper;

e) selecting one of said at least one quote sent from said plurality of carriers; and

f) automatically communicating said selection from the at least one shipper to said plurality of carriers.

5

11. The method according to claim 10, wherein said step of communicating at least one shipping requirement to a plurality of carriers includes communicating at least one shipping requirement to at least one solicited carrier and communicating at least one shipping requirement to at least one unsolicited carrier.

10

12. The method according to claim 11, wherein said at least one shipper communicates at least one shipping requirement to said at least one solicited carrier and said shipment management system communicates at least one shipping requirement to said at least one unsolicited carrier.

15

13. The method according to claim 12, further comprising the step of automatically selecting at least one of said at least one unsolicited carrier to allow said selected at least one carrier to submit said at least one quote.

20

14. The method according to claim 10, wherein said step of receiving said at least one shipping requirement includes receiving a mode of transportation.

15. The method according to claim 10, further comprising the step of automatically receiving tracking information from said plurality of carriers to track each shipment.

25

16. The method according to claim 10, further comprising the step of displaying on a computer screen said at least one quote for shipping from said plurality of carriers.

30

17. The method according to claim 10, further comprising the step of sending a request for a quote from said at least one shipper to said plurality of carriers over said computer network.

18. The method according to claim 17, further comprising the step of automatically offering said request for quote to only a limited number of carriers via said computer network.

5 19. The method according to claim 10, further comprising the step of displaying quality information data about said plurality of carriers on a computer screen.

20. The method according to claim 19, wherein said step of displaying quality information data includes displaying the percentage of bookings missed.

10 21. The method according to claim 19, wherein said step of displaying quality information data includes displaying the percentage of customer complaints.

15 22. The method according to claim 19, wherein said step of displaying quality information data includes displaying a carrier profile, including information about the number of employees, and the number of locations, its delivery routes, and pricing information.

20 23. The method according to claim 10, further comprising the step of displaying for each of said at least one shipper a quality performance report concerning each past shipment for each carrier.

25 24. The method according to claim 23, wherein said step of displaying for each of said at least one shipper a quality performance report includes displaying a percentage of missed booked flights or deliveries of said shipper's shipments.

30 25. The method according to claim 23, wherein said step of displaying for each of said at least one shipper a quality performance report including displaying a percentage of shipments without tracking data.

26. The method according to claim 10, further comprising the step of displaying a summary report comparing a cost savings for said shipper based upon quotes sent from said plurality of carriers.

5 27. The method according to claim 26, wherein said step of displaying a summary report includes displaying the average cost paid for each shipment and displaying the average cost offered by said plurality of carriers.

10 28. The method according to claim 10, further comprising the step of re-quoting said quotes presented by said plurality of carriers.

15 29. The method according to claim 28, wherein said step of re-quoting includes adjusting said quotes based upon a bid position set forth by each of said plurality of carriers based upon a lead bid presented by at least one of said plurality of carriers.

30. The method according to claim 28, further comprising the step of receiving at least one bid limit from at least one of said quoting carriers.

20 31. The method according to claim 30, further comprising the step of automatically adjusting said quotes with re-quotes within said bid limit received from each of said at least one quoting carriers.

25 32. The method according to claim 31, wherein said step of automatically adjusting said quotes includes adjusting said quotes based upon a bid position set forth by each of said plurality of carriers based upon a lead bid.

30 33. A computerized system for managing shipping comprising:
a) a central server;
b) at least one information storage means connected to said server;
c) a processor connected to said server for processing information stored on said

storage means;

d) at least one remote input device, said remote input device for inputting information into and receiving information from said server;

5 e) a communications means for communicating information from said at least one remote input device to said central server; and

f) a database for storing information about a plurality of carriers and a plurality of shippers on said storage means;

10 wherein said database is accessed by a plurality of carriers and a plurality of shippers through said at least one remote input device so that a plurality of requests for quotes are input into said database and a plurality of quotes are input based upon each of said plurality of request for quotes, and wherein at least one shipper selects at least one quote stored in said database so that a shipment order is purchased over said server.

15 34. An article of manufacture comprising:

a) a computer usable medium having machine readable program code means embodied therein for receiving at least one shipping requirement from at least one shipper for a particular shipment over a computer network;

20 b) machine readable program code means for communicating said at least one shipping requirement to a plurality of carriers over a computer network;

c) machine readable program code means for receiving at least one quote for shipping from said plurality of carriers over said computer network;

d) machine readable program code means for automatically selecting one of said plurality of carriers; and

25 e) machine readable program code means for electronically communicating said selection from said at least one shipper to said at least one carrier.

35. A computer program product for use with a machine over a computer network, said program product comprising:

30 a) a computer usable medium having computer readable program code means

embodied in said medium for causing a computer to receive at least one bid from the at least one bidder over a computer network;

5 b) machine readable program code means for causing said computer to receive at least one bid position from the at least one bidder over said computer network based upon at least one lead bid;

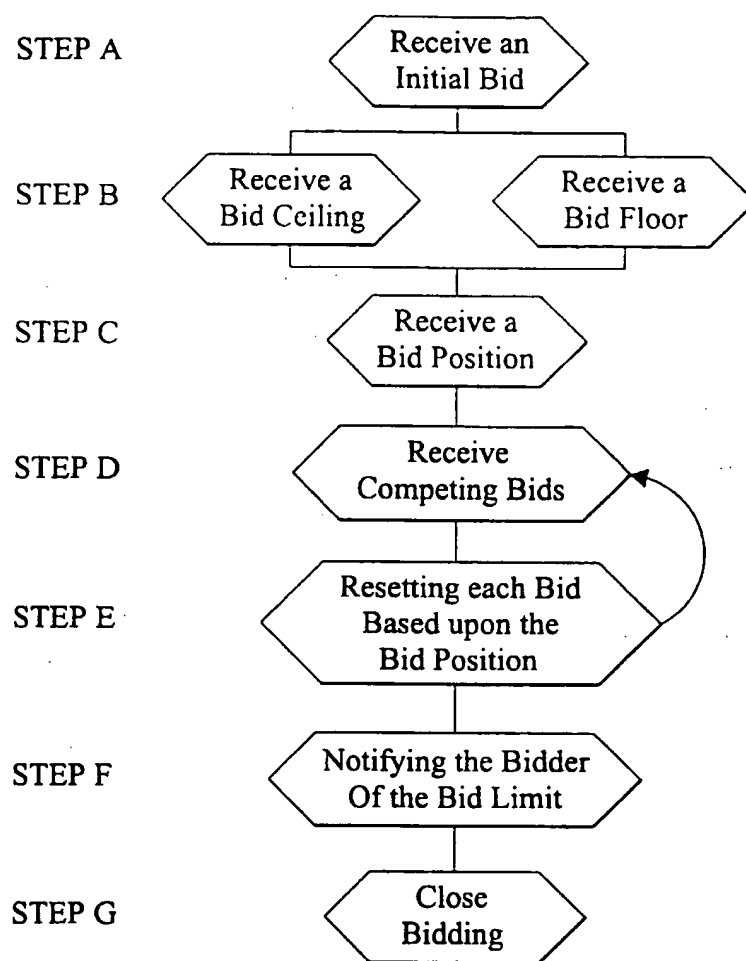
 c) machine readable program code means for causing said computer to receive a plurality of bids from a plurality of bidders over said computer network;

10 d) machine readable program code means for causing said computer to calculate a bid for said bidder having the bid proxy based upon said received lead bid and said received bid position; and

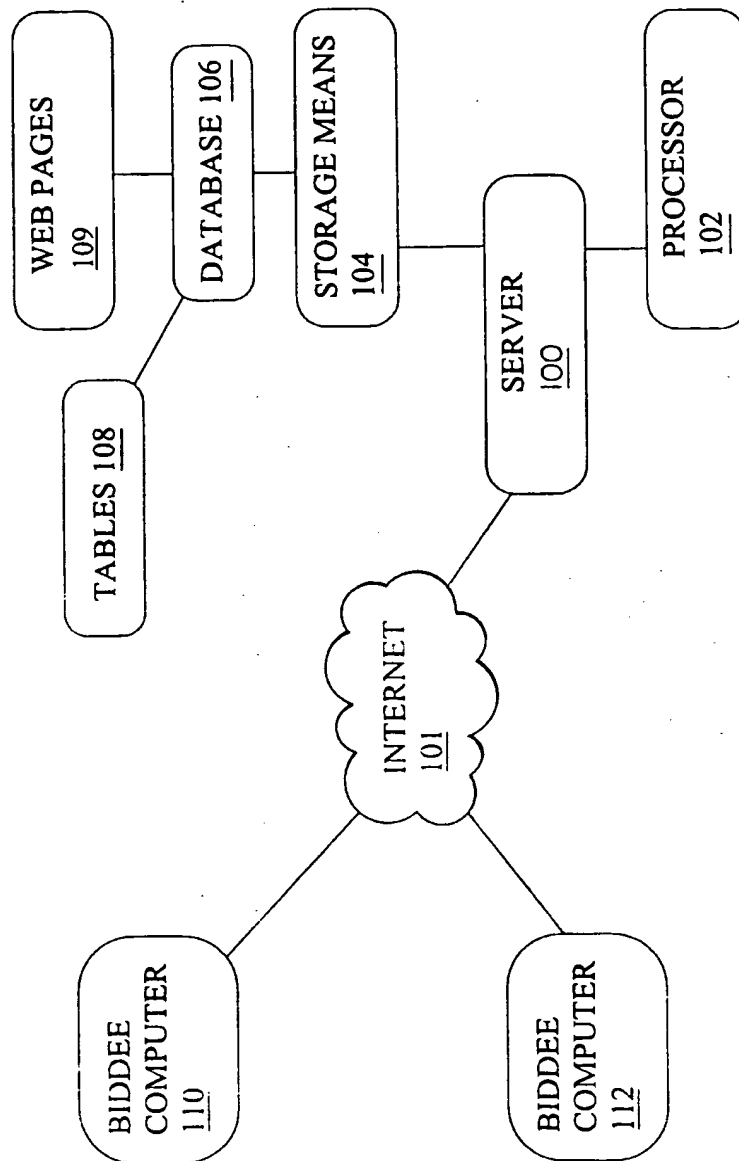
 e) machine readable program code means for causing said computer to reset a bid placed by the at least one bidder having the bid proxy automatically, based upon said bid position in relation to said lead bid.

15

1/14

*FIG. 1*

2 / 14

**FIG. 2**

50 →

INITIAL BID <u>52</u>	BID FLOOR <u>54A</u>	BID POSITION <u>56</u>

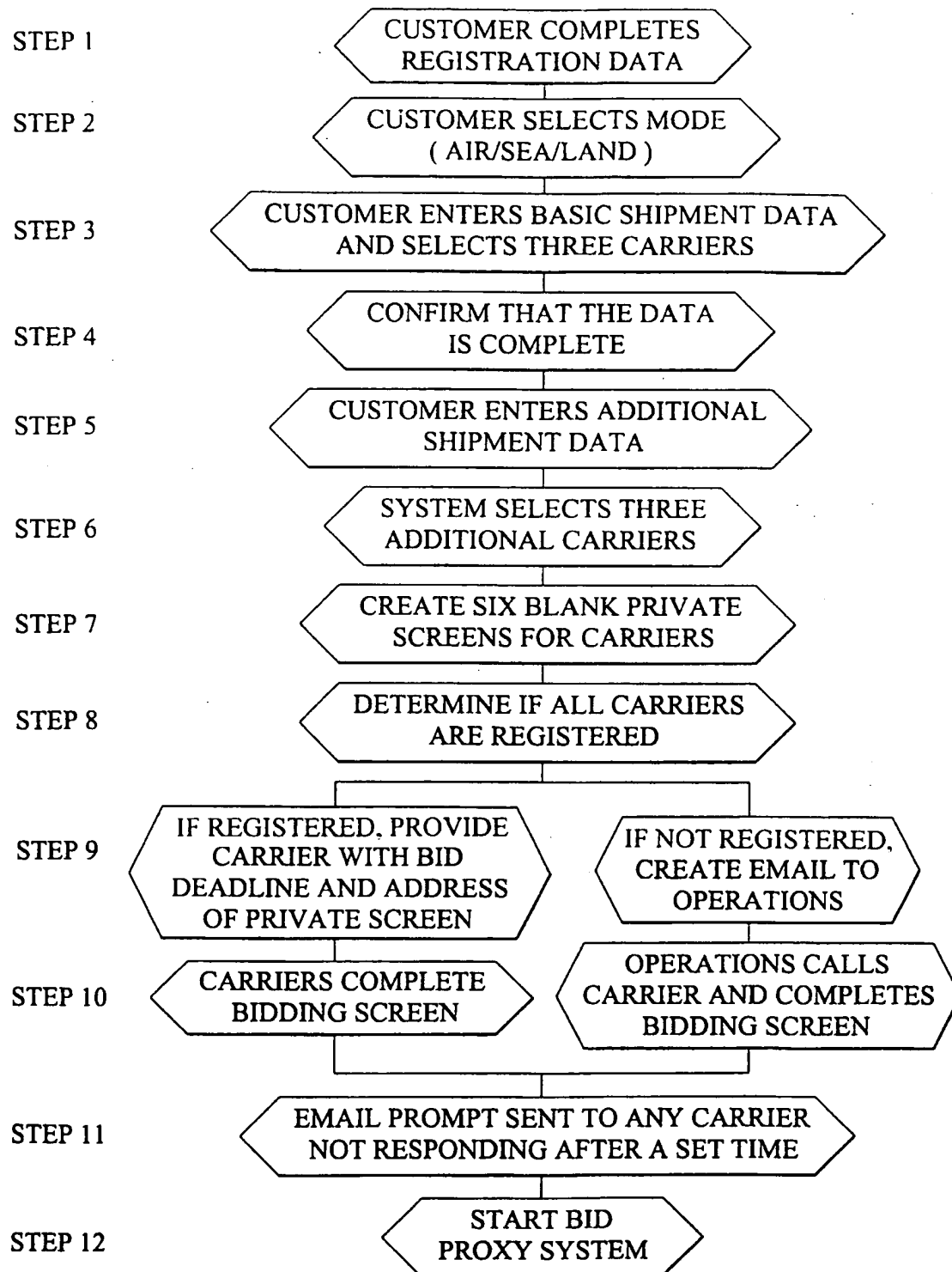
FIG. 3A

50 →

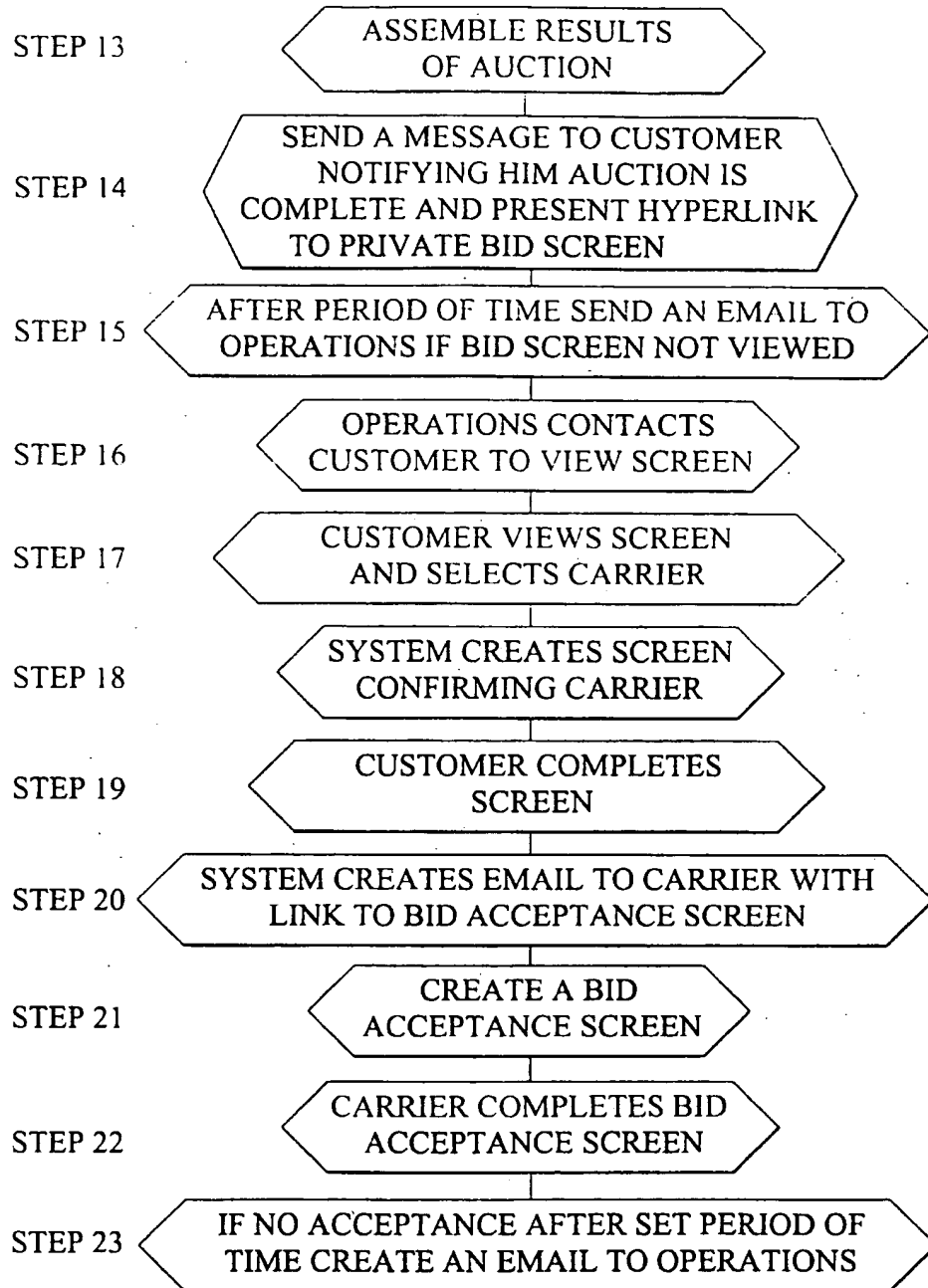
INITIAL BID <u>52</u>	BID CEILING <u>54B</u>	BID POSITION <u>56</u>

FIG. 3B

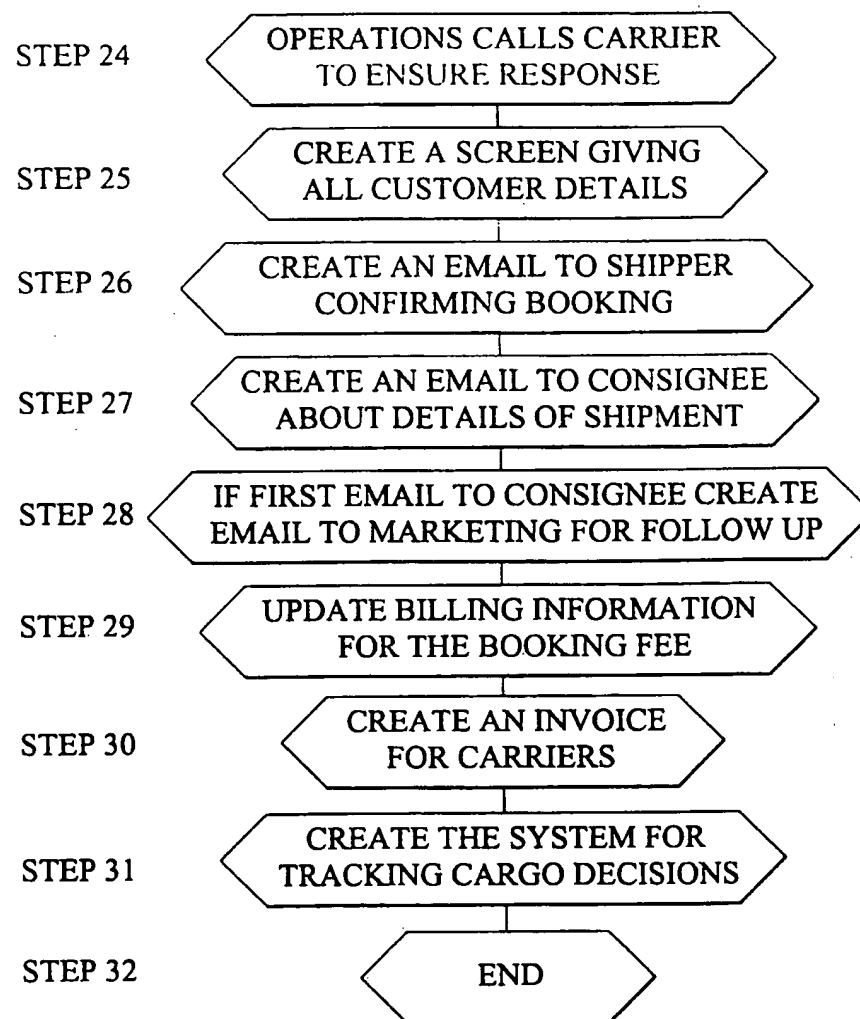
5 / 14

**FIG. 4A**

6/14

**FIG. 4B**

7/14

*FIG. 4C*

8/14

150 →

YOUR REFERENCE NO. 151		DESTINATION CITY 156		CARRIER #1 161	
DATE I NEED THE BIDS 152		DESTINATION COUNTRY/STATE 157		CARRIER #2 162	
TIME I NEED THE BID 153		WEIGHT IN POUNDS 158		CARRIER #3 163	
DATE SHIPMENT READY 154		DIMENSIONS IN FT ³ 159		CHARGES PAID BY 164	
DELIVERY DEADLINE 155		NUMBER OF PIECES 160		OTHER INFORMATION 165	

FIG. 5

9 / 14

FIG. 6

167 →

RFQ SHIP REFERENCE NO. <u>151A</u>	A23	DESTINATION CITY <u>156</u>	BEDFORD	CARRIER #1 <u>161</u>	MSAS
DATE I NEED THE BIDS <u>152</u>	10/15/99	DESTINATION COUNTRY/STATE <u>157</u>	UK	CARRIER #2 <u>162</u>	EMERY
TIME I NEED THE BID <u>153</u>	10:30 A.M.	WEIGHT IN POUNDS <u>158</u>	458	CARRIER #3 <u>163</u>	BRITISH AIRWAYS
DATE SHIPMENT READY <u>154</u>	10/15/99	DIMENSIONS IN FT ³ <u>159</u>	APPROX 18 FT ³	CHARGES PAID BY <u>164</u>	SHIPPER
DELIVERY DEADLINE <u>155</u>	10/19/99	NUMBER OF PIECES <u>160</u>	9	OTHER INFORMATION <u>165</u>	

BID RESPONSE MSAS <u>240</u>	ANY ADDITIONAL INFORMATION THAT YOU WANT SHIPPER TO SEE <u>242</u>	DIRECT SERVICE ON VIRGIN ATLANTIC <u>244</u>
	OPENING BID <u>246</u>	LOWEST BID <u>248</u>
CHARGES AT ORIGIN <u>250</u>	\$48.50	\$39.00
TRANSPORTATION <u>252</u>	\$385.00	\$294.00
CHARGES AT DESTINATION <u>254</u>	\$0.00	\$0.00
TOTAL CHARGES <u>256</u>	433.50	\$333.50
	Bid Positioning <u>258</u>	Tell us how to adjust your bid...
MATCH LOWEST BID <u>260</u>	GO BELOW LOWEST BID BY <u>262</u> %	BE ABOVE LOWEST BID BY <u>264</u> %
BID FLOOR: <u>270</u>	BID CEILING <u>272</u>	

10/14

FIG. 7

168 →

YOUR REFERENCE NO. 151	A23	DESTINATION CITY 156	BEDFORD	CARRIER #1 161	MSAS
DATE I NEED THE BIDS 152	10/15/99	DESTINATION COUNTRY/STATE 157	UK	CARRIER #2 162	EMERY
TIME I NEED THE BID 153	10:30 A.M.	WEIGHT IN POUNDS 158	458	CARRIER #3 163	BRITISH AIRWAYS
DATE SHIPMENT READY 154	10/15/99	DIMENSIONS IN FT ³ 159	APPROX 18 FT ³	CHARGES PAID BY 164	SHIPPER
DELIVERY DEADLINE 155	10/19/99	NUMBER OF PIECES 160	9	OTHER INFORMATION 165	

COLUMN 1 YOUR SELECTED CARRIERS 170	COLUMN 2 TOTAL COST 171	COLUMN 3 CARRIER'S COMMENTS: 172	COLUMN 4 QUALITY BOOKINGS MISSED % 173	COLUMN 5 QUALITY CUSTOMER COMPLAINT % 174	COLUMN 6 BOOK IT? 175
MSAS	\$333.00	DIRECT SERVICE ON VIRGIN ATLANTIC	16%	1.2%	NO
EMERY	\$330.00	NONE	23%	0.7%	NO
BRITISH AIRWAYS	\$386.34	DAILY FLIGHTS	11%	3.7%	NO
YOU ALSO MIGHT CONSIDER... 177					
CIRCLE	316.29	DIRECT SERVICE ON BRITISH AIRWAYS	11%	2.1%	NO
EXPIDITORS	345.61	NONE	8%	1.1%	NO
CARGO U.K.	295.00	VIA MCO	26%	0%	NO

11/14

178 →

YOUR REFERENCE NO. 151	A23	DESTINATION CITY 156	BEDFORD	CARRIER #1 161	MSAS
DATE I NEED THE BIDS 152	10/15/99	DESTINATION COUNTRY/STATE 157	UK	CARRIER #2 162	EMERY
TIME I NEED THE BID 153	10:30 A.M.	WEIGHT IN POUNDS 158	458	CARRIER #3 163	BRITISH AIRWAYS
DATE SHIPMENT READY 154	10/15/99	DIMENSIONS IN FT ³ 159	APPROX 18 FT ³	CHARGES PAID BY 164	SHIPPER
DELIVERY DEADLINE 155	10/19/99	NUMBER OF PIECES 160	9	OTHER INFORMATION 165	

YOU SELECTED 170	TOTAL COST 171	CARRIER'S COMMENTS 172	QUALITY BOOKINGS HONORED 173	QUALITY CUSTOMER COMPLAINTS 174	BOOK IT? 175
MSAS	\$333.00	DIRECT SERVICE ON VIRGIN ATLANTIC	16%	1.2%	YES!

COSIGNEE COMPANY NAME 180	HER MAJESTY'S IMPORTS
COSIGNEE CONTACT NAME 181	TREVOR BROWN
COSIGNEE CONTACT'S EMAIL OR FAX 182	TBROWN@HML.UK.CO
PLEASE SCHEDULE PICK UP AT MY LOCATION 183	Yes
PLEASE CALL TO SCHEDULE PICK UP 184	no

FIG. 8

12/14

190

DATE 191	YOUR REF# 192	CONSIGNEE 193	CARRIER 194	BOOKED 195	ACTUAL 196	STATUS 197
10/15/99	A23	LHR-HER MAJESTY'S IMPORTS	MSAS	VA 123/17	VA 123/17	ENROUTE
10/12/99	A17	SPO-VALLEY ELECTRONICS	EMERY	AA 111/13	AA 173/17	DELIVERED
10/12/99	A16	NRT TOKYO SERVICES	MSAS	JL 173/13	JL 173/13	DELIVERED
10/11/99	A14	JFK LONG ISLAND ELEC.	YELLOW TRUCKING	DELIVER ON 14th	DELIVERED ON 14th	DELIVERED
10/9/99	A13	ORD NORTH SHORE ELECTRONICS	BAX GLOBAL	UA 253/9	UA 253/9	DELIVERED

FIG. 9

13 / 14

200 →

CARRIER 201	NUMBER OF SHIPMENTS IN LAST 90 DAYS 202	NUMBER WITH TRACKING DATA 203	PERCENT WITHOUT TRACKING DATA 204	NUMBER OF MISSING BOOKED FLIGHT OR DELIVERY 205	% OF MISSING BOOKED FLIGHT MY SHIPMENTS 206	% OF MISSING BOOKED FLIGHT ALL RFQSHIP CUSTOMERS 207

FIG. 10

14/14

210

YOUR REFERENCE NUMBER 211	DESTINATION 212	CARRIER SELECTED 213	PRICE PAID/ BOOKINGS MISSED% 214	LOW OFFER PRICE/QUALITY 215	HIGH OFFER PRICE/QUALITY 216

AVERAGE COST YOU PAID 217	
AVERAGE COST OFFERED - ALL CARRIERS OFFERS 218	
AVERAGE OF LOWEST OFFERS ONLY 219	
AVERAGE OF HIGHEST OFFERS ONLY 220	

FIG. 11

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 June 2001 (28.06.2001)

PCT

(10) International Publication Number
WO 01/46833 A3

(51) International Patent Classification⁷: **G06F 17/60**

III, 151, Crandon Blvd. Apt. 1127, Florida, FL 33149 (US).

(21) International Application Number: **PCT/US00/34489**

(74) Agent: **ROOS, Richard, J.**; Dike, Bronstein, Roberts & Cushman, Intellectual Property Practice Group of, Edwards & Angell, LLP, P.O. Box 9169, Boston, MA 02209 (US).

(22) International Filing Date:
19 December 2000 (19.12.2000)

(81) Designated States (*national*): CA, JP, MX.

(25) Filing Language: English

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(26) Publication Language: English

(30) Priority Data:
60/172,084 23 December 1999 (23.12.1999) US
09/536,118 27 March 2000 (27.03.2000) US

Published:
— with international search report

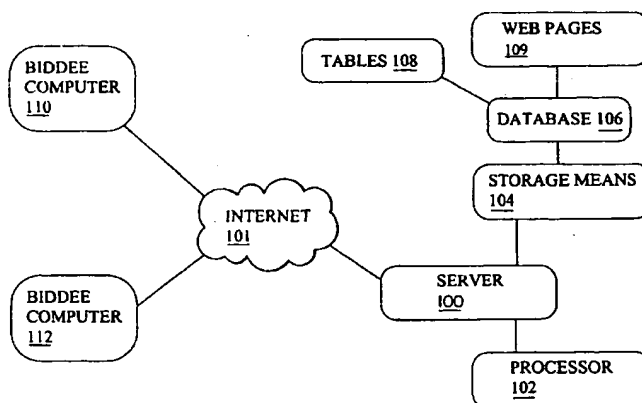
(71) Applicant: **LOGISTICS.COM, INC.** [US/US]; 23 Third Avenue, Burlington, MA 01803 (US).

(88) Date of publication of the international search report:
31 January 2002

(72) Inventors: **BORGESON, Gregg**; 254 Seaview Drive, Key Biscayne, FL 33149 (US). **WILSON, Robert**; Key Colony

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **BID POSITIONING SYSTEM**



(57) Abstract: The invention relates to both a method and a computer system that are designed to provide a bid positioning system using a computerized bid proxy. The bid proxy takes instructions from the bidder and then bids based upon these instructions. Using a bid positioning system allows this bidder to place its bids in relation to a lead bid placed by another bidder in an auction based upon either a nominal or percentage distance from the lead bid. In a preferred embodiment, this computerized bid proxy is used in a shipment management system. This system allows a shipper to present at least one shipping requirement for a particular shipment to a centralized server. These shipping requirements could include the origin and destination of a shipment, the time or delivery data of a shipment, the number of articles being shipped, and the weight or volume of the shipment. The server next sends the at least one shipping requirement to a plurality of carriers some of whom are chosen by the shipper and some of whom are chosen by the system. These carriers next bid based upon the at least one shipping requirement. This system and method also allows these carriers to re-quote their bids based upon the bids presented by the other carriers. Once all of the bid deadline has been reached, the shipper picks the quote that best suits the shipper.

WO 01/46833 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/34489

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 835 716 A (HUNT WILLIAM M ET AL) 10 November 1998 (1998-11-10) column 5, line 20 -column 5, line 31 column 3, line 8 -column 3, line 62 ---	33
A	WO 98 48366 A (CSX TECHNOLOGY INC) 29 October 1998 (1998-10-29) abstract ---	33
A	US 5 724 524 A (HUNT WILLIAM M ET AL) 3 March 1998 (1998-03-03) abstract ---	33
A	US 5 222 018 A (RIORDAN II EBEN M ET AL) 22 June 1993 (1993-06-22) column 3, line 48 -column 10, line 36 --- -/--	33

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

8 June 2001

Date of mailing of the international search report

22/06/2001

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Kruspig, S

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/34489

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 6 035 289 A (GARG AMIT ET AL) 7 March 2000 (2000-03-07) abstract -----	33

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

Continuation of Box I.1

Claims Nos.: 1-32, 34,35

Rule 39.1(iii) PCT - Scheme, rules and method for doing business, The search examiner could not establish any technical problem which might potentially have required an inventive step to overcome. Hence, no meaningful search was found possible (Articles 17(2)(a)(i) and (ii) PCT).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/34489

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5835716 A	10-11-1998	CA 2192303 A	16-06-1997
WO 9848366 A	29-10-1998	AU 6974698 A	13-11-1998
US 5724524 A	03-03-1998	CA 2192302 A	16-06-1997
US 5222018 A	22-06-1993	US 4713761 A	15-12-1987
		DE 3685375 A	25-06-1992
		EP 0209392 A	21-01-1987
US 6035289 A	07-03-2000	NONE	